REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

Claim 1 stands rejected under 35 USC 112, first paragraph, as allegedly lacking written description. The rejection is traversed for the reasons that follow.

The Examiner contends that, because the instant claim encompasses the use of yet to be identified inhibitors of vascular cell proliferation and chemotherapeutics, the claim is not supported. The Examiner is requested to provide basis for her position in that regard, or withdraw the rejection.

As pointed out previously, the subject specification includes numerous examples of known agents that can be used in Applicants' novel methods. At page 7-10 of the application, a large number and wide variety of suitable agents are described. (Applicants also provide at pages 10-12 of the application methods of identifying yet further agents that would be suitable for use in the invention.) Accordingly, absolutely no basis is seen for the Examiner's apparent assertion on page 3 of the Action, fourth paragraph, that the only suitable agents taught are those of claim 11.

The Examiner again contends that the language of claim 1 is functional at the point of novelty (this assertion again being based on Lilly[1]). In that regard, attention is again directed to the fact that the present claims are drawn to a method of inhibiting or treating progression of cerebral vasospasm that follows SAH. The Examiner's assertions to the contrary, the novelty of the claimed method does not result from the specific nature of the agent used but rather from the fact that Applicants were the first to appreciate and disclose that narrowing of cerebral arteries

[1] The Examiner is reminded that the claims of Lilly were drawn to a product (cDNA), not to a method. The product was a vertebrate insulin cDNA or mammalian insulin cDNA. The court in Lilly found these recitations

that is characteristic of cerebral vasospasm is in fact due to proliferation of cells in the vascular wall and/or accumulation of extracellular matrix under the influence of growth factors. Accordingly, the claim is in no way functional at the point of novelty.

The Examiner also relies on In re Curtis and Noelle v. Lederman to support her assertion that the written description requirement has not been met. The portion of Curtis quoted by the Examiner makes reference to the insufficiency of the disclosure of a single species to support a genus. As noted above, far more than a single species is disclosed here and thus the relevance of Curtis is not seen. In citing Noelle v. Lederman, the Examiner states that the court pointed out that a generic claim to anti-CD40CR Mabs lacked written description because there was no description of anti-human or other species Mabs and no description of human CD40CR antigen. Basis for the Examiner's reliance on Noelle v. Lederman is not seen, given that the subject specification is replete if examples of known agents that can be used in the practice of the presently claimed method.

In view of the above, reconsideration and withdrawal of the rejection are requested.

Claim 1 stands rejected under 35 USC 112, first paragraph, as allegedly being non-enabled. Withdrawal of the rejection is submitted to be in order for the reasons that follow.

In rejecting claim 1, the Examiner states that "[t]hese recitations, 'an agent that inhibits vascular proliferation' and 'a chemotherapetic agent', are seen to be merely functional language." The Examiner contends that the instant specification fails to provide information that would allow one skilled in the art to fully practice the instant invention without undue experimentation. Respectfully, these comments overlook the fact that the subject disclosure

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provided an inadequate description of the claimed genus because they did not distinguish the claimed genus from others, except by function. This is clearly a very different situation than that which exists here.

includes numerous examples of agents appropriate for use in the instant invention, as well as methods of identifying yet further suitable agents.

As pointed out previously, In re Angstadt and Griffin, 190 USPQ 214 (CCPA 1976) is an enablement case that is relevant to the present rejection of claim 1. In Angstadt, the court acknowledged that Appellants had not disclosed every catalyst that would work in the claimed chemical process and addressed the question of whether, in an unpredictable art, the enablement requirement of 35 USC 112, first paragraph, requires disclosure of every species encompassed by the claims. The court found that there was not such requirement, pointing out that:

> "such a requirement would force an inventor seeking adequate patent protection to carry out a prohibitive number of actual experiments. This would tend to discourage inventors from filing patent applications in an unpredictable area since the patent claims would have to be limited to those embodiments which are expressly disclosed."

The court concluded that, having decided that disclosure of every species encompassed by the claims is not required, even an unpredictable art, each case must be determined on its own facts. In Angstadt, the court found that Appellants' disclosure of a list of catalysts and details of how to make and use them to be sufficient. The court pointed out that the experimentation required to determine which species would work would not be undue and would certainly not "require ingenuity beyond that to be expected of one of ordinary skill in the art" (citing Fields v. Conover, 170 USPQ 276, 279 (CCPA 1971).

The facts in Angstadt are similar to those here. Here, the disclosure at pages 7-10 includes numerous types of agents suitable for use in the invention, as well as numerous examples of specific agents. Also included are citations for publications teaching additional specific agents (which publications are incorporated by reference at page 28). In addition, the

application includes at pages 10-12 examples of methods that can be used to screen for suitable agents. Clearly, given the holding in Angstadt, nothing more should be required of Applicants. Reconsideration is requested.

Claims 1, 10 and 11 stand rejected under 35 USC 102(b) as allegedly being anticipated by Black. The rejection is traversed.

The Examiner contends that Black discloses that well-known neuropharmaceutical agents, such as chemotherapeutic agents, are useful in treating abnormal brain tissue, including SAH. Respectfully, in so contending it is clear that the Examiner has misinterpreted the reference.

Black et al relates to "a method for selectively opening abnormal brain tissue capillaries ... to allow selective passage of ... neuropharmaceutical agents into abnormal tissue." The method involves opening the abnormal brain tissue capillaries by infusing bradykinin or a bradykinin analog into the carotid artery of the mammal. The bradykinin or bradykinin analog is infused in an amount sufficient to selectively open the abnormal brain tissue capillaries to allow passage of neuropharmaceutical agents, including high molecular weight agents, into the abnormal brain tissue without opening the normal brain capillaries to passage of the neuropharmaceutical agent. The method is indicated to be applicable to the treatment of brain tumors, abnormal tissues resulting from multiple sclerosis, ischemia and cerebral abscess. The method is also indicated to be applicable to brain tissue that is inflamed, infected or degenerated due to any number of different diseases. Examples of specific types of abnormal brain tissue are indicated to include, in addition to SAH, gliomas, metastatic brain tumors, head injury, meningitis, brain abscess and multiple sclerosis.

In the paragraph bridging columns 4 and 5 of Black, its stated:

> Any of the well known neuropharmaceutical agents may be administered in accordance with the present invention. Low molecular weight (100-20,000) as well as high molecular weight (about 20,000 to 70,000) neuropharmaceutical agents may be used. In addition to neuropharmaceutical agents, diagnostic agents may be used including imaging or contrast agents. Exemplary diagnostic agents include substances that are radioactively labelled such as 99-Tc glucoheptonate, gallium-EDTA, ferrous magnetic or iodinated contrast agents. Exemplary neuropharmaceutical agents include antibiotics, adrenergic agents, anticonvulsants, nucleotide analogs, chemotherapeutic agents, anti-trauma agents and other classes of agents used to treat or prevent neurological disorders. Specific neuropharmaceutical agents which can be administered into abnormal brain tissue in accordance with the present invention include cisplatin, carboplatin, tumor necrosis factor-α (TNF-α), methotrexate, 5-FU, amphotericin, immunotoxins, boron compounds, monoclonal antibodies and cytokines, such as interferons, interleukins, transforming growth factors, oligonucleotides.

Black in no way teaches or suggests that any or all of these neuropharmaceutical agents could be used to treat any or all of the abnormal brain tissues referenced above. The point of this portion of Black is that infusion of bradykinin or a bradykinin analog in accordance with the method taught allows passage of whatever neuropharmaceutical agent might be necessary to treat the abnormal tissue – e.g., passage of a chemotherapeutic agent to treat a glioma or metastatic brain tumor or passage of an antibiotic to treat brain tissue that is infected. Absolutely nothing in Black teaches administering a chemotherapeutic agent to treat SAH, as the Examiner contends.

In view of the above, reconsideration is requested.

NIKLASON et al
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This application is submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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